Congratulations on your choice of the Zenza Bronica SQ-Am single lens reflex camera which has been developed to provide the user with high quality performance, simple handling convenience and extremely useful versatility plus automatic motorized film winding and shutter cocking operations suitable for the professional photographer.

Although the Zenza Bronica SQ-Am has been designed exclusively for motorized operations, it has, also, been developed as a complete modular "system" camera possessing complete interchangeability with the interchangeable lenses and accessories developed for the SQ and SQ-A models, on which the SQ-Am is also based, and, therefore, provides the user with a very high degree of motorization in daily operations, in addition to automatic film winding and shutter cocking actions. Although instructions following are based on a standard combination consisting of the SQ-Am main body with Zenzanon-S 80mm lens, Film Back SQ 120 and WaistLevel Finder S, the choice of the lens, film back and finder is left to the discretion of the photographer, who should choose those items best suited to the type of assignments contemplated.

To obtain best results from the Zenza Bronica SQ-Am, may we suggest that you read this instruction manual through carefully, before you even touch the camera, as your pleasure in using the camera will be even greater if you thoroughly familiarize yourself with its working parts before loading your first roll of film.

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Specifications of the ZENZA BRONICA SQ-Am

Type	6 x 6cm format auto-winding lens shutter single lens reflex camera, with interchangeable lens, film back, finder and focusing screen systems.
Frame size	55.6 x 55.6mm
Film	120 roll film (12 exposures); 220 roll film (24 exposures); 135 roll film in film cartridges; and Polaroid® Land Pack films. (Exclusive film backs for each film type.)
Standard lens	Zenzanon-S 80mm F2.8; interchangeable type lens; six elements in four groups; multi-layer anti-reflection coated; 51° angle of view; F22 minimum aperture; and minimum 0.8m focusing distance.
Filter size	67mm diameter on 50mm to 250mm lenses; and 95mm diameter on 40mm and 500mm lenses.
Lens mount	Exclusive four-claw Bronica SQ bayonet mount.
Focusing adjustments	Helical focusing system built into each lens.
Lens diaphragm	Fully automatic instant reopening lens diaphragm action; equal-distant aperture scale gradua tions.
Shutter	Electronic control SEIKO #0 between-lens leaf shutter; shutter speeds 8 sec. to 1/500 sec., without intermediate settings, plus T (time exposure); mechanical control 1/500 second.
Film winding	Motorized automatic film winding action.

Multiple exposure	Multiple exposure possible with multiple exposure lever on camera main body.
Mirror lock-up	Mirror lock-up possible with the mirror lock-up switch lever on the camera main body, with two settings - S - Mirror returns automatically after shutter release action. C - Mirror stays locked up for continuous mode operation.
Mode selection	Mode changes with mode selector switch on the handgrip, with three settings - OFF - All power is switched OFF and the shutter is locked. Sm - Single mode operation (single frame exposed). Cm - Continuous mode operation (consecutive frames exposed).
Film back	Exclusive film backs for 120, 220 and 135 roll films and Polaroid& Pack film.
	Daylight loading interchangeable type; with 'ASA/ISO film speed dial coupling to finder with built-in exposure meters.
Finder	Interchangeable finder system.
Focusing screen	Interchangeable type. Standard type, supplied with camera, has split-image rangefinder spot surrounded by microprism ring and full-area matte screen. Flash synchronization X-setting (for all speeds up to 1/500 second).
Battery checking	Red-colored LED indicator lights up at the rear end of the shutter speed scale window when the battery check button is depressed (for checking the electronic shutter 6-volt power source).
Batteries	Single 6-volt silver oxide or alkaline-manganese battery for the electronic shutter system; Six AA-size alkaline-manganese or NiCd batteries for the motor drive system.
Firing speed	Continuous shooting or single frame exposures at the rate of 3 frames per 2 seconds (approximately) is possible with the fastest shutter speed.
Shutter speeds usable	All shutter speeds can be used with auto-winding (also possible with finders having built-in exposure meters).
Number of frames	Approximately 500 frames can be exposed when fresh alkaline-manganese batteries are used (at normal ambient temperature)
Others	Drive button, Over-load warning LED, Shutter release warning LED, Remote Control terminal, External power terminal, Hot-Shoe.
Dimensions	144.5(wide) x 93(high) x 132mm(long) - SQ-Am main body only. 144.5(wide) x 109(high) x 179mm(long) - SQ-Am main body, with standard lens, Film Back SQ 120 and Waist-level Finder S.
Weight	960 grams (SQ-Am main body, without batteries) 1,925 grams (SQ-Am main body, with standard lens, Film Back SQ 120 and Waist-level Finder S but without batteries.)

The above specifications are subject to change with or without prior notice.

Aperture ring
Depth of field scale
Distance scales
Focusing ring
Finder release button
Mirror lock-up switch lever
Multiple exposure lever
Waist-level finder
Lens release button
Shutter speed dial
Shutter speed scale
Battery check LED
Back cover release button (left)
ASA/ISO film speed dial
Mode selector switch
Drive button
Overload warning LED
Back cover release button (right)
Exposure counter

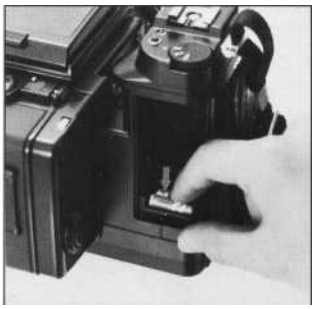
Neck strap eyelet
Hand strap
Lens alignment dot
Remote control terminal
External power terminal
Manual film winder

Lens release button
Battery check button
Neck strap eyelet
Film plane mark
Spool holder
Dark slide slit
Depth of field preview lever
Film back release button

111 Loading the Batteries

A single 6 volt silver oxide battery or alkaline-manganese battery is required for the electronic control lens shutter. The electronically-controlled shutter system will not work without loading the battery. The shutter will be mechanically controlled when the battery is not loaded and will be released at 1/500 sec., regardless of the setting on the shutter speed dial.
Six 1.5 volt AA-size alkalinemanganese or NiCd batteries are required for the motor drive system.
However, the performance noted in the specifications will not be possible when manganese batteries are used because of their electrical characteristics.

*The batteries noted may be obtained at any photographic equipment or electrical applianceshop.



A. Set the mode selector switch to OFF. Then, slide the battery chamber button in the arrowindicated direction which will permit the cover to be taken off.

The battery chamber cover is closed by, first, inserting the bottom end and then pushing the top end until it locks.

B. Taking out the upper battery holder will expose a lower battery chamber which is for the 6 volt battery of the electronic shutter. Coincide the plus (+) and minus (-) marks on the battery with similar polarity indications in the battery chamber, when inserting the battery, and then push it in with your finger.

* The shutter will be mechanically-controlled at 1/500 sec. when the battery is loaded with polarity marks reversed.

121 Battery Checking

C. The six AA- size batteries for the motor drive system must be loaded in the battery holder taken out, with their polarity marks coincided to the indications on the holder. The battery holder in which the batteries have been loaded must be inserted into the battery chamber in the arrow- direction indicated on the holder.

A. Set the mode selector switch to Sm or Cm and then depress the battery check button. If a red-colored LED lights up at the rear end of the shutter speed scale window, the battery for the electronic shutter is loaded properly and there is sufficient power for operations. * If the LED does not light up, (1) Mode selector switch is on "OFF" position, (2) the battery is not loaded properly or (3) it is completely drained and should be exchanged.

B. The batteries for the motor drive system are checked by setting the mode selector switch to Sm or Cm and depressing the drive button to check whether there is motor drive operation or not.

3. Exchanging Lenses

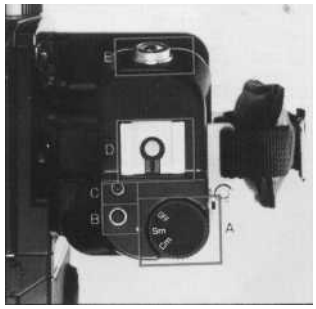
The Zenza Bronica SQ-Am will not operate properly unless the lens is attached. Furthermore, it will not be possible to attach or remove the lens unless both main body and lens are in the "cocked" condition, with the cocking pin on the lens positioned between the red-colored band and green-colored dot and the cocking pin of the body set to the green dot. When the cocking pins are not located properly for attaching the lens, simply move the cocking pin of the lens to the green dot manually, with your finger, and press the drive button to cock the lens shutter when the cocking pin of the main body is not located at the green-colored dot.

A. To attach the lens to the body, align the orange dot on the camera main body and the red dot on the lens, and then insert the lens fully into its mount. Rotate in the counterclockwise direction until it stops, with an audible click, which will indicate that it is securely locked.

B. To detach the lens, press the lens release button down and, at the same time, rotate the lens in the clockwise direction until it makes a full stop, at which point it will be possible to detach the lens.

4. Functions on the Hand-Grip

A. The mode selector switch has three settings, or OFF, Sm and Cm. When set to OFF, all power is switched OFF and autowinding, lens shutter operation and the built-in exposure meter of attached finders will not function. When set to Sm, there is single exposure operation and when set to Cm, there is continuous exposures while the shutter release button is depressed.



B. The drive button is used to set the loaded film to the first frame to be exposed, after it is aligned to the start-mark, to advance the film for multiple exposures, etc.

C. When there is abnormal overload on the motor during film winding operations, etc., the motor will stop and the redcolored overload warning LED will light up. Therefore, move the mode selector switch to OFF, check for the cause of the overlaed and rectify it. Then, set the mode selector switch to Sm or Cm and it will be possible to continue shooting.
OFF, check for the cause of the overload and rectify it. Then, set the mode selector switch to Sm or Cm and it will be possible to continue shooting.

D. The accessory shoe is a hot shoe type which means that electronic flash units with proper terminals can be used without connecting cords. However, the contact cover on the hot shoe must be removed, first, when attaching electronic flash units.

E. Depress the shutter release button gently, with the ball of the finger.
When the shutter release button is stroked gently and smoothly, it will be possible to confirm the shutter speed setting in the viewfinder area of the AE Prism Finder S, when it is attached.

5 Shutter Release

Warning LED

In the following cases, the shutter will not be released and a shutter release warning LED will light up, outside the screen area, in the top center of the finder:
1 . Dark slide is inserted.
2. Lens is not attached properly. (Same with automatic extension tubes, too.) 3. Lens release button is depressed.
4. Film is not advanced. (Same when exposure counter is between "S" and "1 ".) 5. Batteries for motor drive operation does not have sufficient power.

The film back is a film chamber that can be attached or detached freely, thus permitting free exchange of film types even during shooting sessions.
The film back is fully coupled to the camera main body, upon attachment. Therefore, the shutter will not be released, even when the shutter release button is depressed if the film back is attached with the film still not advanced properly, and the shutter release warning LED will light up instead. The drive button should be used, in this case, to advance the film one frame.
On the other hand, should the drive button be depressed when a film back is attached with film advanced properly and, therefore, in condition for photography, the film will not be advanced.
Thus, it is possible to choose the film type most suited to the shot, even midway in the roll. An ASA/ISO film speed dial is available on the film backs and can be used for setting the film speed of the film loaded in the film back, as there is automatic

coupling when finders with built-in exposure meters are attached on the camera body. This will, of course, be very convenient when using films of different sensitivities in the film backs.

* Make full use of the interchangeable film back. 1. Color and black-and-white, in different film speeds, can be shot, as required.
2. Continuous shooting is possible if sufficient preloaded film backs are available. 3. Don't waste unsuitable film used in a previous session but simply load up a new film back with the required film type. 4. A Single SQ-Am can be used by many in the studio or at home, by using additional film backs.

* Film backs are available optionally. Therefore, the type meeting the requirements of the photographer should be chosen.

161 Attachment and Removal of Film Back

A. To attach the film back to the camera main body, simply insert the latches at the upper end of the film back into the attachment openings at the upper end of the camera main body. Then, press the lower end of the film back against the body until it locks securely.

*The dark slide must be withdrawn from its slit, upon attachment of the film back to the main body, as otherwise the shutter cannot be released. Furthermore, there is danger of the film back accidentally becoming detached from the main body, should the dark slide be r

B. To remove the film back from the camera main body, insert the dark slide into the dark slide slit, as illustrated, with the O mark on the dark slide at the top end. Push it all the way in.

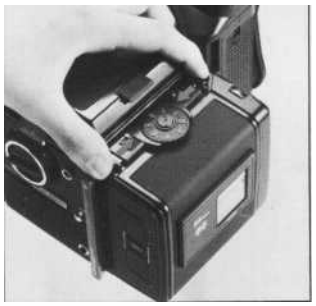
left in its slit while the camera is being carried. Therefore, make it rule to withdraw the dark slide promptly upon attaching the film back to the main body.

C. Depress the film back release button and the lower end of the film back can be removed, as illustrated. Simply shift the film back up slightly and pull it away.

* The dark slide cannot be withdrawn from the film back when the film back is detached from the camera main body.

7. Construction of Film Back

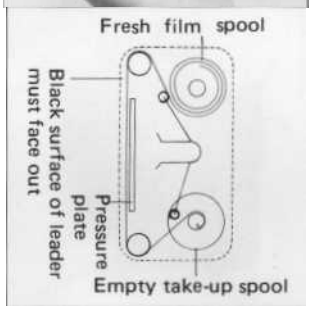
8. Film Loading



A. The film back consists of a film holder and a film back frame, with exclusive film backs available for 120 and 220 roll films. The film holder has an insert or frame for loading film, as well as a built-in film winding mechanism.

B. The film back frame has a base with a dark slide slit and a back cover with an ASA/ISO film speed dial and a film type indicator frame. The film back frame completely encloses the film holder and shields it from outside light, as well as connecting it to the camera main body and also coupling with the finders with built-in exposure meter.

A. To open the back cover, squeeze the left and right back cover release buttons, in the arrow-indicated directions, at the same time and the back cover will open.



B. The film holder can be taken out for film loading, upon opening the back cover.

C. There are two spool holders on the film holder. The top one is for the fresh film spool while the bottom one is for the empty take-up spool. The left-side shaft of spool holder can be opened by pushing the fresh film spool outward in the arrowindicated A direction. Therefore, insert the right end of the spool on to the right-side shaft, which is fixed, and then close the left-side holder (shaft) which will engage the spool.

* The spool holders on the left side will be locked securely, when the back cover is closed.

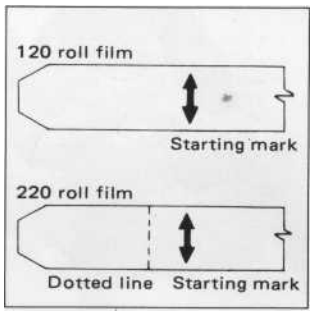
D. After loading the fresh film spool properly, draw out the leading end of the film and turn it across the film pressure plate (as illustrated). Run it down and turn it over to the take-up spool. Insert the leading end into the slit of the take-up spool and wind slightly until securely engaged.

* The inside black surface of the leader must face out when running across the pressure plate, in this case.

E. Lift up the hinged flap and rotate the manual film winder on the right side of the film holder in the arrow-indicated direction. When the starting point, or arrow mark, on the leader is aligned with the triangular start-mark on the top left side of the film holder, stop rotation.

F. Close the back cover, by pressing it firmly against the base of the film back, as illustrated. The back cover will automatically close and lock. The same operation will close the back cover when the film back is detached from the main body.

G. Upon loading the film, set the mode selector switch to Sm or Cm and depress the drive button, which will place the first frame into position for taking the picture.
The exposure counter will also change from "S" to "1" and the shutter will also be cocked.



19 ASA/ISO Film Speed Dial

H. When the film back is detached from the camera main body for film loading, the manual film winder is used for advancing the film. The film will stop when it is in place for the first exposure, with the exposure counter also changing to "1 ". However, it will be possible to rotate the manual film winder and, therefore, it should be rotated 2 or 3 times more, in order to take up any slack in the loaded film.

* When loading 220 roll film in the Film Back SO 220, do not mistake the dotted line before the arrow mark for the start-mark.

* See the instructions supplied with Film Back SO 135 for proper use of the 135 roll film.

To set the film sensitivity of the film loaded in the film back, revolve the ASA/ISO film speed dial with a slight lifting action, as illustrated, and set the film speed scale to the index. There are click-stops at 1/3rd increments, in this case. (The dial can be revolved in either direction)

* The ASA/ISO film speed dial is automatically coupled to the finder with built-in exposure meter, when attached.

110' Film Type Indicator Frame

1111 Auto-Winding and Shutter Cocking

Upon loading the film, tear off the end flap from the empty film package and insert it in the film type indicator frame. This will help you keep track of the film loaded in the film back, even when two or more film backs are used with different films. At the same time, set the film speed with the ASA/ISO film speed dial, as it will come in handy when using the finder with built-in exposure meter.

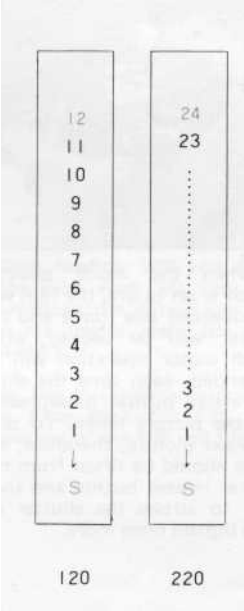
A. When the mode selector switch is set to Sm, the film will be advanced one frame and the shutter will be cocked, after which motor operation will be suspended, each time the shutter release button is depressed and the picture taken. To take the next picture, therefore, the finger should be lifted from the shutter release button and then used to stroke the shutter release button once more.

B. When the mode selector switch is set to Cm, there will be continuous photography (with continuous auto-winding and shutter cocking action), as long as the shutter release button is depressed.

* The mirror lock-up switch lever should be set to N, except when shooting with the mirror locked up. (See page 29 on Mirror Lock-Up.)

(121 Exposure Counter

The exposure counter shows the number of frames exposed or, in other words, is an additive type. Starting from "S", the counter on Film Back SQ 120 shows numbers from 1 to 12, while Film Back SQ 220 shows numbers from 1 to 24.
The letters "S", "12" and "24" are orange-colored while all other numbers are white.



113' Film Unloading

A. After the 12th exposure of the 120 roll film (24th exposure of the 220 roll film), the film only will be advanced until the remaining film and leader paper is wound up on the take-up spool.
Open the back cover when the motor suspends operations.

B. Remove the film holder and, while preventing the loose film from unwinding, take out the take-up spool. Seal the exposed film and return it to its original box until development.

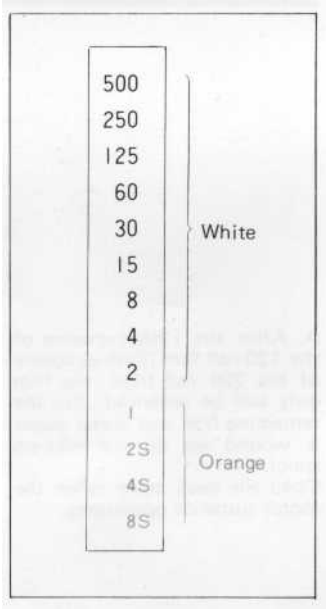
* Load and unload film away from direct sunlight and/or strong illumination.

(141 Setting the Shutter Speed Dial

A. The shutter speed scale is viewed in its window over the shutter speed dial. The numbers on the scale are shutter speed settings, with numbers 1 to 8S full numbers and numbers 2 to 500 fractions of a second. For examples, "8S" is 8 sec., "2S" is 2 sec. and "500" is 1/500 sec., but no intermediate setting between click stops are possible.

* The shutter is released at 1/500 sec., regardless of the setting when the battery is not loaded or is completely drained.

B. The numbers on the scale are color-coded in orange and white. Orange-colored numbers are full number settings of 1 second and longer while whitecolored numbers are setting from 1/2 to 1/500 second. There is no B (bulb) setting. See the page 21 for time (T) exposures.



1151 Time (T) Exposure

Time exposures are made with the time exposure lever on the lens, regardless of the setting on the shutter speed scale. However, the lever is locked to prevent accidental movement and, therefore, must be unlocked for use.
Except when using the lever for time exposures, always shift it so that the letter "A" is visible on the lens barrel and tightly lock its set screw to prevent accidental movement.

A. Unscrew the set screw on the time exposure lever until further revolution is not possible, which will permit the lever to be moved freely.

B. Slide the time exposure lever and expose a red-colored "T" on the lens barrel. Depressing the shutter release button, in this condition, will open the shutter. The shutter is closed by shifting the time exposure lever and exposing the letter

"A" once more. • ,:,
the film will not be advanced to the next frame, in this case depress the drive button to advance the film.
the next frame, in
depress the drive button to

1161 Setting the Aperture

A. The aperture ring is rotated, in either direction, to set the required f/number opposite the white index dot. The aperture ring click-stops at the numbered settings. Intermediate settings are also possible.

* Intermediate settings cannot be used when the finders with built-in exposure meter are used.

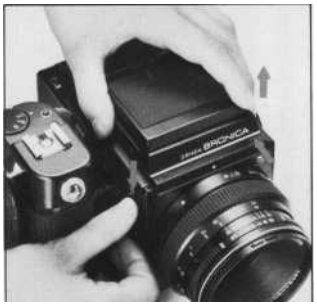
B. All interchangeable lenses for the Zenza Bronica SQ-Am have fully automatic lens diaphragms which means that the focusing screen is always viewed at the full aperture, with the brightest possible image. However, depressing the depth of field preview lever will stop the lens diaphragm down to the preselected lens opening and permit the photographer to check the depth of field effect on the focusing screen.

* The aperture ring must not be adjusted while the depth of field preview lever is being depressed.

17 Interchanging Finders

Q' Waist-Level Finder and

Q Interchanging Magnifiers



A. The finder can be interchanged, with other optional finders, to match shooting conditions to photographic conditions. To attach the finder, align the front end of the finder with the front end of the finder frame on top of the camera main body, as shown. Then, gently lower the finder and, when well-seated, slide forward until it locks.

B. To detach, simply depress the finder release button, while, at the same time, sliding the finder backwards where it can be taken up.

A. The focusing hood of the waist-level finder is opened by pushing up on the focusing hood catch at the rear end of the folded waist-level finder.

* There is no standard finder for the Bronica SQ-Am, with the user having a choice of several finders. Instructions are based on the waist-level finder because of its popularity.

B. The magnifier is flipped into viewing position, by simply sliding the release lever in the arrow-indicated direction. To store the magnifier, simply push it down until it catches.

* The magnifier can be exchanged for one matching the eyesight of the user.

C. To close the focusing hood, first, push down the magnifier (if it is in viewing position). Next, press in both side frames, as illustrated, and, at the same time, press the front frame back towards the rear. The focusing hood will automatically be folded down.

D. The standard magnifier supplied with the waist-level finder has a power of -1 .5 diopters, which can be exchanged for others with powers of -4.5, -3.5, -2.5, -0.5, +0.5 and +1 .5 diopters. These optional accessories should be purchased to suit the user's eyesight, if necessary.
Simply rotate the magnifier frame in the counter-clockwise direction to unscrew.
Attach in the reverse manner.

(191 Focusing Adjustments

A. The lens is focused on the subject, by rotating the focusing ring in either direction, while checking the effect on the microprism / split-image rangefinder spot in the center of the focusing screen (standard type).

B. The central split-image spot splits the image into two, with the upper and lower halves separated horizontally when the lens is out of focus. When in focus, however, the two halves will coincide with the displacement disappearing. The microprism ring surrounding the central spot can also be used for checking the sharpness of the focused image, since the image will glitter when the lens is not focused. The surrounding full-area matte surface can also be used for checking image sharpness.

1201 Distance Scale and Depth of Field Scale

A. Distance scales on the Zenzanon-S lenses can be used for focusing at the required distance or finding the distance actually focused. Simply rotate the focusing ring and set the required distance opposite the orange-colored index, which will adjust the lens for the required distance.

B. There is an apparent zone of sharpness, both in front and back of the focused subject, which is known as the depth of field. The depth of field scale shows the zone of apparent sharpness at any lens opening or distance and can be utilized for quickly and simply ascertaining the depth of field. The depth of field scale is next to the distance scales and is made up of identical pairs of apertures on both sides of the orange-colored distance index. These identical pairs of apertures indicate the distance that will be in focus at these lens openings. For example, if

the 80mm lens is focused at a distance of 3m, it can be seen from the depth of field scale that the zone will extend from 2 to 7 meters (6 ft. to 23 ft.), when a lens opening of F22 is used.

See the depth of field table for the Zenzanon-S 80mm lens, on page 40.

121 Infrared Photography

1221 Flash Photography

In infrared photography, some adjustment must be made in the focus in order to retain sharpness on the film, because the invisible infrared rays are longer in wave length than the visible rays used for focusing. For infrared photography1. Use a R filter or equivalent
with an infrared (black-and white) film.
2. The red-colored line, next to the orange-colored distance index, is the infrared index.
3. After focusing in the normal manner, re-set the distance indicated by the orangecolored distance index to the infrared index, by shifting the distance ring.

4. Follow instructions enclosed with the infrared film and filter and, to be on the safe side, make several bracketing shots. In general, more exposure rather than less seems to be a safe guide.

A. Always use flash cords with a standard PC type plug. When detaching the flash cord, grip the plug firmly and pull it out straight, instead of using a twisting action.

B. The lens shutter of the Zenzanon-S lens has a X-setting for flash synchronization, which means that electronic flash units will synchronize at all shutter speed settings, up to the fastest 1/500 second.
This means, of course, that flash fill-in for daylight shots can also be made very easily.

A. To make multiple exposures, turn the multiple exposure lever in the arrow-indicated direction before exposing the first shot. When the shutter release button is depressed, in this condition, the shutter will be released any number of times without advancing the film.

B. Upon completing the multiple-exposure picture, be sure to return the multiple exposure lever back to its vertical position and depress the drive button to advance the film one frame. If the drive button is not depressed, the next frame will also be a multiple-exposed one.

1241 Mirror Lock-Up

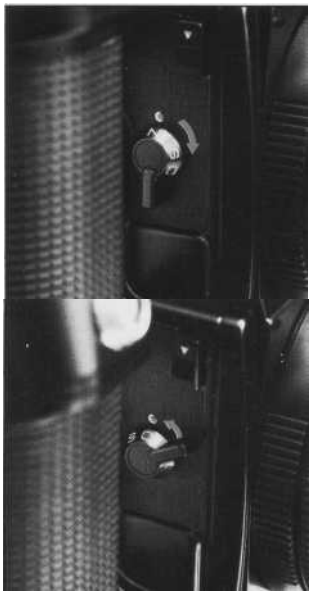
A. The mirror lock-up switch lever has three settings - N(normal) - For shooting with out mirror lock-up.
S(single frame) - For shooting

single frame with mirror
lock-up.
C(continuous) - For shooting continuously with mirror lock-up.

* Always use the AE Prism Finder S in the manual mode, when shooting with the mirror locked up.

B. For shooting with the mirror locked up, rotate the mirror lock-up lever in the arrowindicated direction and coincide S or C to the index. The lens shutter will close completely and the reflex mirror and film safety plate will swing up.

C. The shutter will be released when the shutter release button or electro-magnet release is depressed.



When shooting is suspended, after mirror lock-up, and the mirror lock-up switch lever is rotated from S or C to N, shutter release and motor operation will take place but the film will not be advanced with the result that the next exposure will be double-exposed. Double exposure can be prevented, in the above case, by the following methods.

D. When S is set to the index, with the mirror lock-up switch lever, the lever will automatically return to N, with the next film advancing and shutter cocking action. And, following shots will, of course, be normal.

E. When C is set to the index, with the mirror lock-up switch lever, however, the lever will not return to N with the next film advancing and shutter cocking action but will stay locked up any number of times.

* After completing the 12th exposure or 24th exposure, the film only will be advanced automatically and the motor will suspend its operation. Should new film be loaded and the drive button depressed, with the mirror lock-up switch lever at C, the film will be placed into position for exposing the first frame with the mirror locked up. ,

r The mirror lock-up switch lever must always be returned to N, before loading film.

a) Cover the lens and then use the mirror lock-up switch lever to return to N.
Then, continue photography in the normal manner.

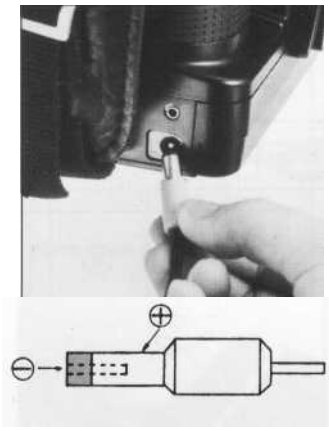
b) Utilize film back interchangeability and detach the film back before rotating the mirror lockup switch lever to N. Attach the film back after motor operations take place and is suspended.

1251 Remote Control Operations

Remote control shutter release operations will be possible by inserting a 2.5mm mini-plug into the remote control terminal on the Zenza Bronica SQ-Am. Equipment which can be used, in this case, are remote control extension cord, wireless remote control equipment, intervalometer, etc., which are available in most photographic equipment stores. However, always check operation of the equipment before actual use. Resistance of the extension cord should not exceed 30 ohm, too.

*The mini-plug of the' remote control equipment must be attached or removed with the mode selector switch at OFF, as otherwise the shutter will be released if the mode selector switch is at Sm or Cm.

1261 Use of External Power



Inserting the plug of an external power source into the external power terminal automatically switches power supply to the motor drive system from the internal battery power (six AA size batteries) to the external power. The battery holder must be left inside the battery chamber even when taking power from an external source. The NiCd batteries cannot be recharged insdie the battery chanber but must be rexhanged externally and then used.

Optional accessories, such as external power source plug, NiCd battery recharger, AC adapter, etc, are not supplied but

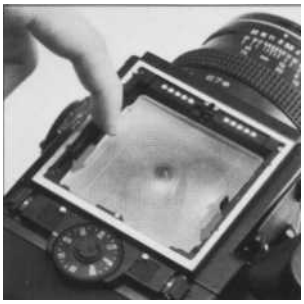
equipment meeting the fol

lowing specifications and condi
tions will be acceptable.
1. External power plug: Plugs used for transistor radios and taperecorders are acceptable.
2. External power conditions: Voltage - DC 9 Volt; Current - 5 Ampere.
3. Cable conditions: The cable from the external power to the SQ-Am should be as short and thick as possible, or -
   Less than 2 meter length with cable of 0.3 sq.mm area, or
   Less than 5 meter length with cable of 0.75 sq.mm area.

* Do not mistake the polarity (+ and -) marks, when using the plug.

* An optional External Battery Pack S (six UM-2 or C-type batteries) is also available as an external power source for continuous shooting sessions.

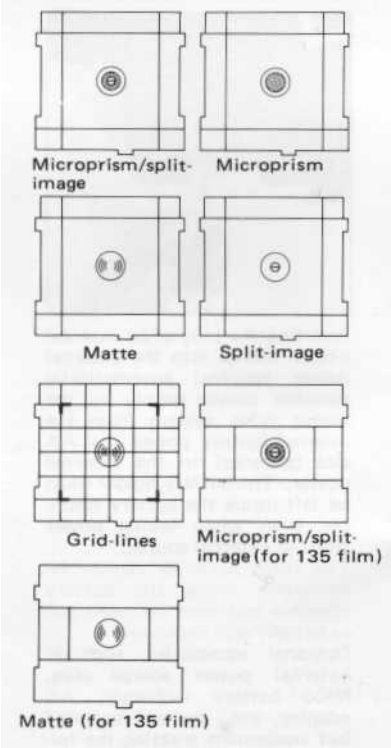
271 Interchanging Focusing Screens



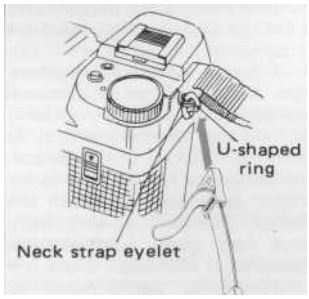
A. The focusing screen can be exchanged, depending on the type of photographic work being undertaken.
First, remove the finder attached to the camera main body. Then, move the screen removal levers on both sides in the arrow-indicated directions, as illustrated. Then, using a pincer or similar tool, lift up the screen with the protrusion at the rear end.

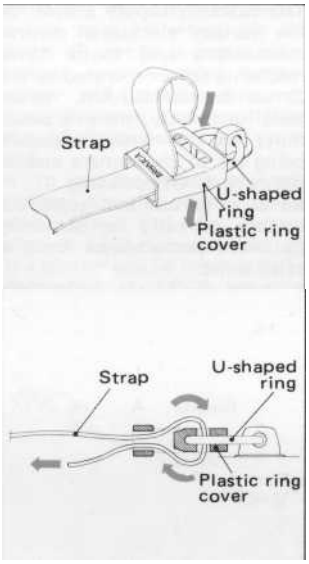
B. To install the focusing screen, nest the protrusion at the rear end of the screen in a corresponding groove on the camera main body. Then, slide both screen removal levers forward to secure the focusing screen.

* Seven types of focusing screens are available.



1281 Attachment of the Neck Strap



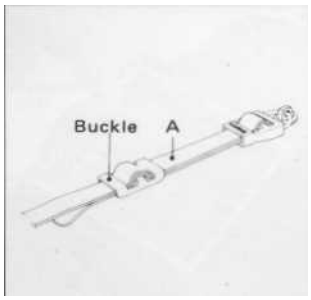


A. First, insert the U-shaped ring into the neck strap eyelet, as illustrated.

B. Next, place the plastic ring cover over the U-shaped ring, as illustrated.

C. Next, thread the neck strap through the plastic ring cover (and the U-shaped ring) and pull it out, as illustrated.

1291 Facts about the Battery



D. After adjusting the length of the neck strap, pass the leading end of the strap through the buckle, as illustrated, which will fix it securely.

"There should be no slack in the strap between the buckle and the plastic ring cover, or in "A" section, which means that both straps must be of the same length at this point.

The batteries supply power for the various electronic control mechanisms and motor drive mechanisms incorporated in the Zenza Bronica SQ-Am. When used incorrectly, there is possibility of the wrong exposure being set to the camera and/or the camera not operating. Be sure to use and store the battery correctly for obtaining optimum performance from it at all times.

- Take the battery out of the battery chamber, and set mode selector switch to "OFF" position when storing the camera.
- Leaving the battery in the camera for a long time, without using it, can lead to leakage problems and result in poor contact. Discard a battery with leakage or corrosion and thoroughly clean out the battery chamber, before inserting a new battery.
- Clean the contacts of the battery chamber and battery with a soft cloth. Don't use sandpaper or emery cloth.
- For motor drive system, use fresh batteries with same brand name. When replacing the batteries, replace all six batteries at the same time.

- Don't throw the battery into a fire, or hit it strongly, as there is danger of explosion.
- Either a silver oxide battery (No. 544/PX28) or an alkalinemanganese battery (A544/ 4LR44) for shutter control as well as "AA" size alkalinemanganese or NiCd batteries for motor drive are used with the Zenza Bronica SQ-Am. Both have very good cold weather resistance. However, there is a tendency for performance to drop when the temperature falls below 0˚C (32˚F). Therefore, make it a rule to use a new battery and/or keep replacement batteries on hand for shooting outdoors in freezing weather. Keep the battery (and camera) under cover, next to the body, and load just before beginning the session and/or, preferably, use the optional Remote Camera Battery Pack E and External Battery Pack S.

(301 Pointers on Shooting

- The shutter cannot be cocked when film is not loaded in the film back. The use of the multiple exposure lever will, however, permit you to cock the shutter, in such instances. This feature is, of course, very convenient for familiarizing yourself with the camera and for testing the shutter in flash photography. (See "23 Multiple Exposures".)

- Battery power is not consumed when time exposures are made.

- The voltage will drop when the camera is used for long shooting sessions in freezing weather. Insert new batteries or keep a spare on hand, for such occasions. Furthermore, keep such batteries in an inside pocket.

- The focusing screen is detachable, for exchanging with other types. Do not place trimming masks or tapes on the bottom surface of the screen, as this will lead to inaccurate focusing.

- If the mode selector switch is set to OFF when the AE Prism Finder S is attached to camera main body, battery power will not be consumed even the power source switch of the AE Prism Finder S is set to ON.
- In case the voltage of 6 volt battery for the shutter operation drops and the battery checker LED does not light up, the shutter will be mechanicallycontrolled at 1/500 sec. and there will be no automatic film winding by the motor. In such case, if the battery is removed, then the shutter will be released at 1/500 sec. and the film will be advanced automatically by the motor.
- It should be remembered, when taking pictures, that the final print will not be a square format, especially in the economy size, but will be cut down on both sides or at the top and bottom.

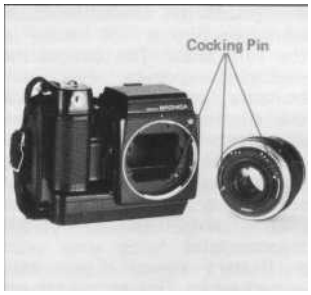
3 Care of the ZENZA BRONICA SQ-Am

• Restrict cleaning of the reflex mirror to blowing or brushing with the blower brush or a soft camel hair brush. Don't touch the surface with your fingers or a cloth.
• Use lens cleaning tissue and liquid to clean the surface of the lens. Do not use siliconcoated cloth for this purpose, as it will prove detrimental to the lens coating.
• Clean the plastic focusing screen in the same manner. Don't touch the surface as you may leave fingerprints.
• Protect your camera from temperature changes which can result in moisture condensation, frost, etc., inside the body, leading to rusting of metallic parts and troubles.

• Protect your camera from impact and vibrations, too.

• Upon attaching the film back, always pull out the dark slide from its slit.
• Always protect the lens with its cover, when carrying the camera.

• Clean the camera and lens very carefully after using it outdoors in wet weather or at the seashore.
• Wipe the camera carefully with a well-wrung damp cloth, using fresh water, if the exterior is effected by salty air. Then, wipe it dry with a soft, dry cloth. If necessary, send it out for a quick inspection at an authorized repair station.
• If the equipment is not being used for a long period, store everything in tin-lined containers, with plenty of desiccant, such as silica gel. Finally, store the equipment in a cool, dry and well-ventilated (but not windy) place.
• Do not thread too strongly, when using a longer-thanstandard tripod screw, as you may damage the body.



• Both camera main body and lens must be in the "cocked" condition to attach or remove the lens. I n other words, when " cocked" the cocking pin of the lens will be set between the red band and green dot, while the cocking pin of the body mount will be set to the greencolored dot.
When not set in the above manner, the cocking pin of the detached lens (also Automatic Extension Tube) can be set by moving it manually to the greencolored dot, while the cocking pin of the SQ-Am main body is set by depressing the drive button.

• Always clean all exposed contact points before attachment, as otherwise there will be faulty contact which will lead to improper operations.

• See that exposed contact points are not short-circuited with a metal object.

*When using the flash synch socket on the camera body, always cover the hot shoe with its protective cover.

On the other hand, when using the hot shoe, cover the flash socket with its cover. Otherwise, an electric shock may be received from the uncovered contact.

• Never insert/remove the miniplug of the remote control equipment with the mode selector switch set at Sm or Cm.

• Do not use the external terminal with external power exceeding 10 volts.

*When a finder with a built-in exposure meter is attached for photography and a film of different sensitivity is loaded in the film back, always remember to readjust the ASA/ISO film speed dial for the new film.

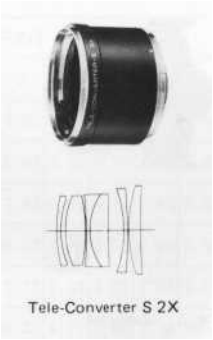
40mm F4

50mm F3.5

105mm F3.5

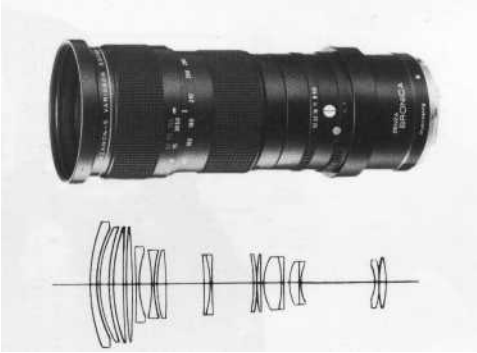
	40mm F4	50mm F3.5	80mm F2.8	105mm F3.5	150mm F3.5
No. of lens element	8 - 11	8 - 10	4- 6	4- 6	5- 5
Angle of view	87°	76°	51°	41°	30°
Apertures	4 -22	3.5-22	2.8-22	3.5-22	3.5-22
Minimum focusing distance (M)	0.4 (1.3ft)	0.5 (1.6ft)	0.8 (2.6ft)	0.85 (2.8ft)	1.5 (4.9ft)
Filter size (mm)	95	67	67	67	67
Overall length (mm)	83	62	52	60	61
Weight (grams)	660	560	470	540	590
Equivalent focal length in 35mm format camera (mm)	21	28	45	58	85

500mm F8



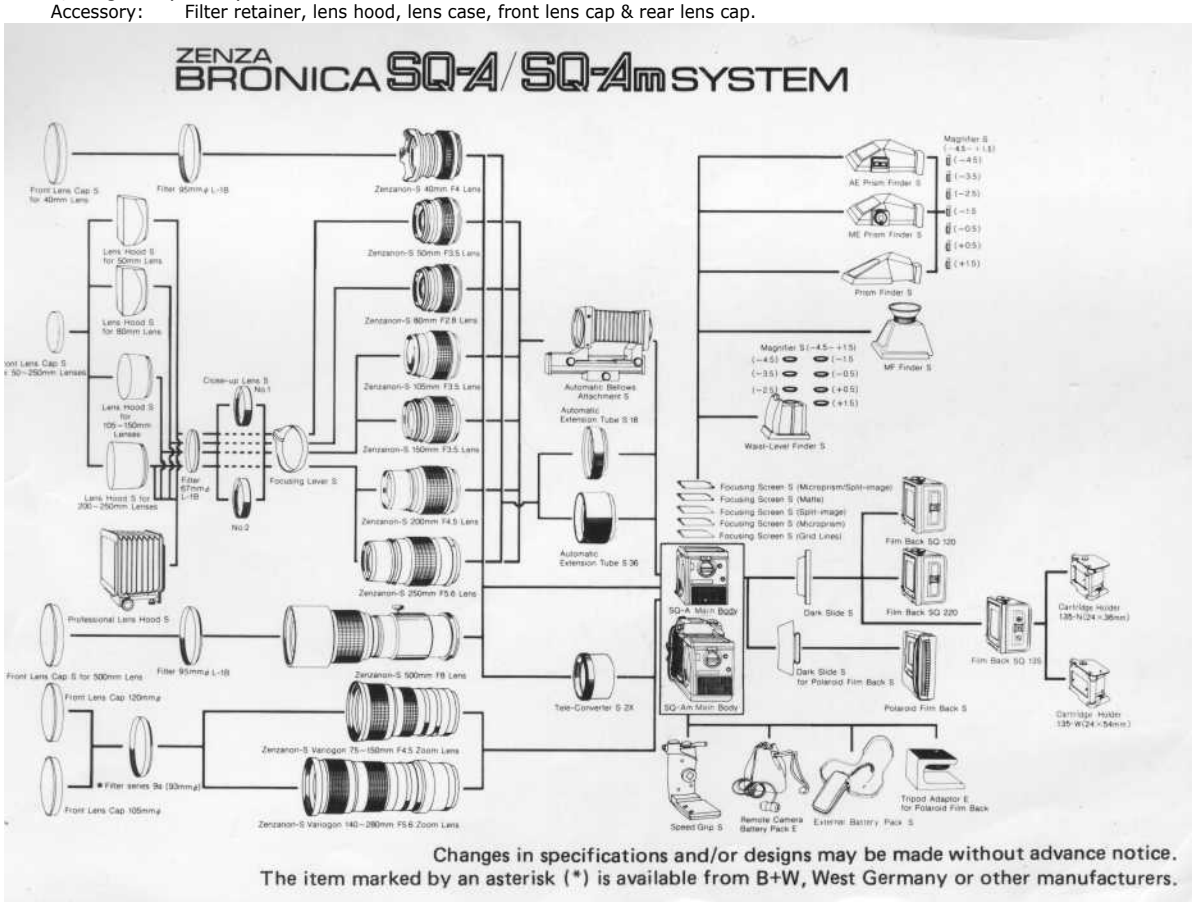
Tele-Converter S 2X

	200mm F4.5	250mm F5.6	500mm F8	Tele-Converter S 2X	
No. of group-element	5 - 5	5- 5	6 - 7	5 - 6	
Angle of View	22°30"	18°	9°		
Apertures	4.5-32	5.6-32	8 -45		
Minimum focusing distance (M)	2.5 (8.2ft)	3 (9.8ft)	8.5 (28ft)		
Filter size (mm)	67	67	95		
Overall length (mm)	97	129	255	53	
Weight (grams)	740	870	1 ,890	500	
Equivalent focal length in 35mm format camera (mm)	105	135	280		



Zenzanon-S Variogon 75-150mm F4.5 Zoom Lens Lens construction: 13 groups in 15 elements Angles of view: 53°30' - 30°6'
Apertures: 4.5 -32
Diaphragm: Fully automatic
Minimum focus: 1.8m (0.25m in macro mode) Filter size: Series 9a (diameter 93mm) Size: 100mm x 152mm
Weight: 1,800 grams (3.96 Ibs)
Accessory: Filter retainer, lens hood, lens case, front lens cat) & rear lens car).

Zenzanon-S Variogon 140-280mm F5.6 Zoom Lens Lens construction: 14 groups in 17 elements Angles of view: 30°42' -16'12' Apertures: 5.6 '- 32
Diaphragm: Fully automatic
Minimum focus: 2.5m (0.76m in macro mode) Filter size: Series 9a (diameter 93mm) Size: 94mmo x 221 mm Weight: 2,000 grams (4.4 Ibs)
Accessory: Filter retainer, lens hood, lens case, front lens cap & rear lens cap.


ZENZA
BRONICA SQ-A/SQ-Am SYSTEM
Changes in specifications and/or designs may be made without advance notice.
The item marked by an asterisk (*) is available from B+W, West Germany or other manufacturers.